

shortened statutory period for response. In that Action, the Examiner required an amendment to the title, which is being made, and further rejected all of the pending claims 1-12 under 35 U.S.C. 103 as being unpatentable over Martin U.S. 2,558,450 in view of Lynde U.S. 506,704, Newton U.S. 506,929, and Knight U.S. 1,816,016.

The rejections are traversed as being unsupported. Briefly, the references neither teach nor suggest recited elements of the claims, so even if combined, they do not yield the claimed invention and further, the prior art neither teaches nor suggests the particular combinations proposed by the Examiner.

Claims 1 through 12 recite three elements, either individually or in combination, none of which are shown or suggested by any of the prior art relied upon by the Examiner.

Claims 1, 2 through 5 dependent thereon, 11 and 12 recite:

frame connected to the body and having opposed arms, each arm depending from the body and having a free end portion, the free end portions of the arms (or "the arm free end portions" in claims 11 and 12) being separated by a gap so that the arms are not subjected to assembly loads or system pressure loads,...

None of the cited references shows such a set of arms.

The Examiner admits that arms 26 and 27 of Morton are subjected to tension or compression forces from the valve arrangement of that sprinkler.

The Examiner asserts that Newton teaches "a valve lever assembly wherein the compressive forces are being applied to the body of the sprinkler, rather than the free arms of the frame (13). See figure 1."

The Examiner's characterization of Newton is clearly wrong. The arms 13 of Newton extend all the way from the deflector 17 up to the valve body provided by cylinder 6. See the referenced numeral 13 beneath the referenced numeral 14 on the upper left side of Fig. 1. The valve loads are sustained directly by arms 18 which in turn are supported on arms 20 soldered to the yoke 16 between the arms 13 and bear against the sides 19 of the arms 13. (See page 1, line 84 through page 2, line 31 describing the support of the valve through arms 18 and 20.) The upper portions of arms 13 do not constitute part of the recited "body" as they lack the passage with an inlet and outlet for conducting the flow of pressurized fluid, as is clearly recited in the claims for the "body". Even though the lower portions of arms 13 of Newton may be characterized as "free end portions" and are separated by a gap, they are not separated so that the "arms" themselves are not subjected to (assembly loads or system pressure loads.) The upper portions of the arms 13 are clearly subjected to such loads.

None of the other references cited by the Examiner discloses a frame having arms which are not subjected to assembly loads or system pressure loads.

Claims 6, 8 and 9 dependent thereon, and 11 all recite

a valve assembly (...) including a compound lever assembly, said compound lever assembly including expandable jaws for holding a rigid thermal responsive element therebetween, said compound lever assembly being movable upwardly against a valve upon expansion of the jaws, and means for adjusting compressive pre-load on the valve by expanding the jaws to cause the compound lever assembly to move upwardly against the valve.

None of the references cited by the Examiner includes a valve assembly with such a compound lever assembly.

The Examiner relies upon Lynde as allegedly teaching such a lever assembly. However, the compound lever assembly of Lynde does not include expandable jaws such that the compound lever assembly is movable upwardly against the valve upon expansion of the jaws or means for adjusting compressive pre-load on the valve by expanding the jaws, both elements being expressly recited in the claims. Lynde does not teach any means for adjusting compressive pre-load by expanding jaws or otherwise.

The Examiner relies upon Knight as teaching an adjusting screw which the Examiner asserts one of ordinary skill in the art would incorporate into Lynde. However, the proposed combination is totally unsupported. All of the adjustment screw configurations disclosed in Knight apply compressive forces to a frangible element of the sprinkler. In Lynde, flanged tubes k and l are soldered together to hold the lever arms f and g in compression against the head of the deflector c forming the valve. The frangible assembly k/l in Lynde is under tensile load rather than compressive load. Accordingly, none of the

adjustment screw arrangements disclosed in Knight can be substituted for the soldered tube arrangement k/l of Lynde in a way to sustain the required tensile loads to keep the valve members f and g in position. Indeed, none of the other references cited by the Examiner show adjustable members capable of varying tensile loads on the frangible elements of the Lynde sprinkler.

Claims 7, 10 dependent thereon and 12 recite a valve assembly for sealing the sprinkler body passage outlet, the assembly:

...including an upper lever and a lower lever each pivotally mounted at an end portion thereof to the body, a valve supported by said upper lever, the upper lever being supported along another end portion thereof by the lower lever such that upward pivoting movement of said lower lever causes upward pivoting movement of said upper lever against the valve, said upper and lower levers having jaws for holding a rigid thermal responsive element therebetween, said jaws being expandable upon upward pivoting movement, the lower lever, and means for adjusting compressive, pre-loads on said valve against the valve seat by expanding said jaws to cause said upper lever to pivot upwardly against the valve.

Again, the Examiner appears to rely upon Lynde as showing such a compound jaw arrangement. However, Lynde does not have jaws which are "expandable upon upward pivoting movement of the lower lever" as is recited by the claim. The only portions of Lynde which might be characterized as jaws are bracket h and the protruding portion of lever arm g opposite bracket h. These

members compress upon upward pivoting movement of the lower lever g.

In addition, as was mentioned above, Lynde lacked any "means for adjusting compressive pre-load". Again, the Examiner apparently relies upon the combination of Knight with Lynde as providing that feature. However, for the same reasons outlined above, that combination is clearly unsupported. Knight clearly fails to teach any adjustment means usable with the levers of Lynde.

While all the relied upon references relate to sprinkler construction, that is an insufficient basis for picking and choosing components of each of the relied upon references as the Examiner has done to support the rejections.

When prior art references require selective combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself. Uniroyal v. Rudkin-Wiley, 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed.Cir. 1988) and cases cited therein. Something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. Uniroyal and cases cited therein. It is impermissible to use the claims as a frame and the prior art references as a mosaic to piece together a facsimile of the claimed invention. Uniroyal and cases cited therein.

Citing references which merely indicate that isolated elements and/or features recited in the claims are known is not a

sufficient basis for concluding that the combination of claimed elements would have been obvious. That is to say, there should be something in the prior art or a convincing line of reasoning in the answer suggesting the desirability of combining the references in such a manner as to arrive at the claimed invention. Ex parte Hiyamizu, 10 USPQ2d 1393, 1394 (BdPAI 1988).

There is nothing in the relied upon references supporting the Examiner's proposed combinations of Martin and Newton. Martin discloses a sprinkler having a drop down deflector 36 which can be hidden in a ceiling 10 before operation and a valve assembly having an adjustment screw 49 which permits adjustable pre-loading of that assembly. Newton, on the other hand, discloses a sprinkler having fixed deflector, which cannot be hidden, and a fixed, nonadjustable valve assembly as complicated, if not more complicated, than the valve assembly in Martin and providing none of the adjustability benefits of Martin. There is no apparent benefit in adapting either the fixed deflector configuration or the nonadjustable valve assembly configuration of Newton into Martin, as the Examiner proposes.

Furthermore, there is no basis in any of the relied upon prior art for attempting to substitute the nonadjustable valve assembly of Lynde for the adjustable valve assembly of Martin as the Examiner has done.

Next, because both Lynde and Newton fail to provide the means for adjustment already present in Martin, the Examiner is forced to attempt to resort to Knight as providing a feature

which was already provided by the original configuration of Martin. The fact that Knight fails to disclose a means for adjustment suitable for use with Lynde, further undermines the Examiner's reliance upon that combination. The Examiner has failed to make a prima facie case of obviousness with respect to any of the pending claims 1-12.

DISCLOSURE STATEMENT

Accompanying this Amendment are copies of the U.S. and foreign patent documents listed on the accompanying forms PTO-1449 (2 sheets). The relevance of each of these references is disclosed in the Background of the Invention section of the present application at pp. 1 through 4.

SUMMARY

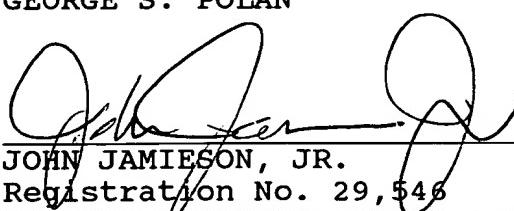
For the foregoing reasons, reconsideration and withdrawal of the rejections and allowance of the application and all claims 1 through 12 are respectfully requested.

Respectfully submitted,

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